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EXAMINER
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ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/843,249	ALBANESE ET AL.
	Examiner	Art Unit	
	Hassan Phillips	2151	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
            application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1. This action is in response to amendments and remarks filed January 13, 2005.

Drawings

2. After consideration of the amendments made to the specification to mention reference characters "163" and "165" from Fig. 2, the Examiner has withdrawn the objection to the drawings.

Claim Objections

3. After consideration of Applicants remarks regarding the phraseology "adapted to", the Examiner has withdrawn the objections to claims 1-4, 6, 8, 9, 11-18, 20-22, 24, and 27-33 for not having positive limitations.

4. After consideration of the amendments made to claim 18 to correct minor errors, the Examiner has withdrawn all objections to claim 18.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. The specification remains objected to under 35 U.S.C. § 112, first paragraph,

as failing to adequately teach how to make and use the invention, i.e., failing to provide

an enabling disclosure.

7. The applicant has failed to provide an enabling disclosure in the detailed

description of the embodiment. More specifically, the applicant has failed to disclose a

network-distributed application routing controller being implemented in at least one user

node as claimed in claims 1, and 33. Instead, the Applicant describes a routing

controller that is separate from a user node, (page 6, lines 12-14). The applicant

describes the routing controller as being "coupled" to the network to receive data from

system nodes. In Fig. 2, the Applicant also shows the routing controller 150 as being

separate from all user nodes (121-126, 131-137).

8. The examiner noted that the claims 1 and 33 have been amended to

overcome previous objections and rejections made under 35 U.S.C. § 112, first

paragraph; however, the specification does not provide an enabling disclosure to

support the currently amended claims 1 and 33 for the reasons previously mentioned.

9. Claims 1 and 33 are rejected under 35 U.S.C. § 112, first paragraph, for the

reasons set forth in the objection to the specification to under 35 U.S.C. § 112, first

paragraph.

10. The Examiner has withdrawn the rejection of claim 34 under 35 U.S.C. § 112,

first paragraph, after consideration of Applicants remarks.

Response to Arguments

11. Applicant's arguments with respect to claims 1-51 have been considered but

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1-14, 20-28, 32-39, 44, 45, 48-51, are rejected under 35 U.S.C. 103(a)

as being unpatentable over Colby et al. (hereinafter Colby), U.S. Patent 6,006,264 in

view of Brendel et al. (hereinafter Brendel), U.S. Patent 5,774,660.

14. In considering claims 1, 33, and 34, Colby discloses a system and method for

directing data on an Internet protocol (IP) network having a plurality of communication

links, the system and method comprising: An origin node coupled to the network and

adapted to supply data to the network, (col. 5, lines 1-3); a plurality of system nodes

coupled to the network and adapted to store at least a portion of the data supplied by

the origin node, (col. 3, lines 36-42); a plurality of servers for routing data between at

least one of the system nodes and the network, (col. 4, line 67, col. 5, lines 1-3); and a

network-distributed application routing controller implemented in the network to

ascertain location information of the data supplied by the origin node, to receive a data request from one of the plurality of system nodes, and to direct routing of the supplied data from a node on the network to the node to which the data has been requested to be delivered via one of the plurality of communication links and using at least one of the servers, the routing being directed in response to the ascertained data location information, (col. 2, lines 48-58).

Although the system and method disclosed by Colby shows substantial features of the claimed invention it fails to expressly disclose: the system nodes being user nodes.

Nevertheless, it was well known in the art at the time of the present invention that system nodes and user nodes are interchangeable. Colby suggests this in disclosing, "...a network node is either a router or an end station", (col. 5, lines 4-12).

Thus, if not implicit in the teachings of Colby, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Colby to show the system nodes being user nodes. This would have shown versatility for directing data on an IP network, Colby col. 4, line 60, through col. 5, line 3.

Although the modified system and method disclosed by Colby shows substantial features of the claimed invention, it fails to explicitly disclose: the routing controller being implemented in a user node.

Nevertheless, implementing routing controllers in user nodes was also well known in the art at the time of the present invention. In a similar field of endeavor,

Brendel teaches: implementing a routing controller separate from, or alternatively within,

a system node, (col. 10, lines 38-52).

Thus, given the teachings of Brendel it would have been obvious to a person of

ordinary skill in the art that the teachings of Colby could be modified to disclose the

routing controller being implemented in a user node. Doing so would have provided an

efficient means for reducing the amount of hardware involved in directing data on an IP

network, Brendel, col. 10, lines 38-52.

15. In considering claim 2, the teachings of Colby provide a means for the user

nodes to provide data location information to the network, the data location information

including the type of data stored at the user node, (col. 2, lines 53-58).

16. In considering claim 3, the teachings of Colby provide a means for the

application routing controller receiving the data location information form the user node

and directing the routing in response to the received data location information, (col. 8,

lines 16-31).

17. In considering claim 4, the teachings of Colby provide a means for one of the

servers and at least two of the user nodes making up a local network, wherein the

routing controller effects data routing between two user nodes coupled to the server via

the local network, (col. 5, lines 43-51).

18. In considering claim 5, Colby teaches the server for the local network including an edge server, (col. 4, lines 60-62).

19. In considering claim 6, it is implicit in the teachings of Colby that server for the local network includes a replication device for replicating data, and sending the replicated data to one of the system nodes, (col. 3, lines 36-42).

20. In considering claim 7, it is implicit in the teachings of Colby that server for the local network replicates data in response to a command from the controller, (col. 3, lines 36-42).

21. In considering claim 8, it is implicit the teachings of Colby provide a means for a replication device to send replicated data to a user node via the network, (col. 3, lines 36-42).

22. In considering claim 9, Colby teaches a network data traffic monitor for detecting a characteristic of one or more of the communication links for use in routing the data, (col. 9, lines 1-15).

23. In considering claim 10, Colby teaches the application routing controller including the traffic monitor, (col. 9, lines 13-15).

24. In considering claim 11, Colby teaches the traffic monitor detecting a characteristic that includes the rate at which a particular communications link can transfer data, (col. 16, lines 66-67, col. 17, lines 1-15).

25. In considering claim 12, it is implicit in the teachings of Colby that the traffic monitor detects a characteristic representing the capacity of a communication link to transfer additional data, (col. 16, lines 66-67, col. 17, lines 1-15).

26. In considering claim 13, Colby teaches the application routing controller using the characteristic detected by the traffic monitor to direct data routing via a communication link identified as having sufficient availability to transfer the data, (col. 16, lines 66-67, col. 17, lines 1-15).

27. In considering claim 14, Colby teaches the application routing controller delaying a data transfer in response to the communication link being unable to handle additional data transfer, (col. 16, lines 66-67, col. 17, lines 1-15).

28. In considering claim 20, the teachings of Colby provide a means for one of the user nodes simultaneously transferring data from a data set while the data set is being received, in response to a command from the application routing controller, (col. 15, lines 31-48).

29. In considering claim 21, the teachings of Colby provide a means for one of the user nodes delaying subsequent transfer of received data until a selected amount of data has been received, (col. 9, lines 1-12).

30. In considering claim 22, it is implicit that the teachings of Colby provide a means for one of the user nodes to effect the delay in response to rates at which it is receiving and sending the data, wherein the delay is sufficient to reduce the possibility of running out of data for a subsequent transfer due to the rate at which the data is being received, (col. 9, lines 1-12).

31. In considering claim 23, Colby teaches a subscription content manager programmed to manage system subscriptions to a provider's content, the subscription management including providing authorization for a particular user to receive selected content data, (col. 3, lines 10-28).

32. In considering claim 24, Colby teaches the application routing controller directing routing in response to the provided authorization, (col. 3, lines 10-28).

33. In considering claim 25, Colby teaches the routing controller programmed to track and report data transfer information, (col. 6, lines 42-45).

34. In considering claim 26, the teachings of Colby provide a means for one of the user nodes programmed to track and report data transfer, (col. 8, lines 16-31).

35. In considering claim 27, the teachings of Colby provide a means for the application router controller directing data transfer of streaming media content for immediate use at one of the user nodes, (col. 15, lines 31-48).

36. In considering claim 28, the teachings of Colby provide a means for at least one of the user nodes making the received data available for use in response to a transmission report being sent from the user node to the application routing controller, (col. 8, lines 16-31).

37. In considering claim 32, Colby teaches the application routing controller sharing data transfer information with other application routing controllers, and using the data location information ascertained by other application routing controllers, (col. 8, lines 26-31).

38. In considering claim 35, the teachings of Colby provide a means for ascertaining information from the plurality of user nodes that describes data stored at the user node, (col. 2, lines 53-58).

39. In considering claim 36, the teachings of Colby provide a means for programming the user nodes to provide the data location information that is used in directing the routing, (col. 5, lines 4-12).

40. In considering claim 37, the teachings of Colby provide a means for sending a request to each user node, wherein each user node responds to the request by sending data location information that is used in directing the routing, (col. 8, lines 16-31).

41. In considering claim 38, Colby teaches routing a live event using streaming data, (col. 15, lines 31-48).

42. In considering claim 39, it is implicit that the teachings of Colby provide for selecting a pay-per-view media event via the network, wherein routing the data includes routing the media event, (col. 15, lines 31-48).

43. In considering claim 44, Colby teaches directing routing of data from more than one node, (col. 5, lines 4-12).

44. In considering claim 45, Colby teaches re-ascertaining data location while the data is being routed, and wherein directing routing of the requested data includes directing the routing in response to the re-ascertained location information data, (col. 5, lines 4-12).

45. In considering claim 48, Colby teaches the data request including a routing priority, wherein directing routing includes routing the data according to the priority, (col. 2, lines 58-67, col. 3, lines 1-3).

46. In considering claim 49, the teachings of Colby provide a means for using subscription content information to determine whether the user node making the data request is authorized to receive the data, wherein routing the data includes routing the data in response to the user node being authorized to receive the data, (col. 3, lines 10-28).

47. In considering claim 50, Colby teaches directing an origin node to deliver a data file to the network, (col. 5, lines 62-67, col. 6, lines 1-6).

48. In considering claim 51, Colby teaches the network-distributed application routing controller being configured and arranged to direct routing of the supplied data from a node on the network to the user node to which the data has been requested to be delivered via one of the plurality of communication links and using at least one of the servers, the routing being directed in response to the ascertained data location information and the location of the user node to which the data has been requested to be delivered, (col. 5, lines 43-51).

49. Claims 15, 16, 29, 40-43, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Colby in view of Brendel, and further in view of Miller et al.

(hereinafter Miller), U.S. patent 5,920,701.

50. In considering claim 15, although the disclosed system of Colby and Brendel

shows substantial features of the claimed invention, it fails to expressly disclose:

   a) Predicting the amount of data that will be transferred during a particular

      time.

Nevertheless, in a similar field of endeavor, Miller teaches a method for

scheduling data transmission comprising:

   a) A routing controller 10, for detecting a characteristic to predict the amount

      of data that will be transferred over a communication link during a

      particular time period, (col. 8, lines 34-49).

Thus, given the teachings of Miller, it would have been obvious to a person of

ordinary skill in the art at the time of the present invention to modify the teachings of

Colby to show the routing controller detect a characteristic to predict the amount of data

that will be transferred over a communication link during a particular time period. This

would have facilitated delivery of data to requesting system nodes in an optimized and

efficient manner, Miller col. 1, lines 51-56.

51. In considering claims 16 and 40, Miller teaches the routing controller directing

the data transfer during a time period that is predicted to have a lower amount of data

being transferred in relation to another time period, (col. 10, lines 1-19). One of ordinary

skill in the art would modify the teachings of Colby with Miller for the same reasons

indicated in consideration of claim 15.

52. In considering claim 29, although the disclosed system of Colby shows

substantial features of the claimed invention, it fails to expressly disclose:

    a) The user node using a security code to make data useable at the node.

Nevertheless, using security codes to make data useable was well known in the

art at the time of the present invention. This is demonstrated in the method taught by

Miller where his method teaches:

    a) An application routing controller sending a security code to a system node,

        wherein the system node uses the security code to make data usable at

        the node, (col. 6, lines 40-44).

Thus, it would have been obvious to a person of ordinary skill in the art at the

time of the present invention to modify the teachings of Colby to show the routing

controller sending a security code to the user node in response to the transmission

report being received, wherein the user node uses the security code to make the

received data useable at the node. Doing so would have provided a reliable, tamper-

proof system for transmitting data between the routing controller and the system node.

53. In considering claim 41, Miller teaches scheduling the routing to occur when

the detected amount of data traffic reaches a target traffic level, (col. 10, lines 1-19).

One of ordinary skill in the art would modify the teachings of Colby with Miller for the same reasons indicated in consideration of claim 40.

54. In considering claim 42, Miller teaches re-evaluating the routing schedule before the scheduled routing time, (col. 12, lines 21-41). One of ordinary skill in the art would modify the teachings of Colby with Miller for the same reasons indicated in consideration of claim 15.

55. In considering claim 43, Miller teaches detecting the amount of data traffic on the network, (col. 8, lines 34-49). One of ordinary skill in the art would modify the teachings of Colby with Miller for the same reasons indicated in consideration of claim 15.

56. Claims 17, 46, 47, are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby in view of Brendel, and further in view of Wolpert, U.S. patent 6,577,601.

57. In considering claims 17 and 46, although the disclosed system of Colby shows substantial features of the claimed invention, it fails to expressly disclose:

    a) Routing data using a least-cost route.

Nevertheless, routing data using a least-cost route was well known in the art at the time of the present invention. Wolpert, in a similar field of endeavor where he discusses the prior art, teaches:

a) Routing data over a particular communication link using a least cost route,

(col. 2, lines 24-31).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the routing controller detecting a characteristic that includes the cost of routing data over a particular communication link and to direct the data using the least-cost route. Doing so would have minimized resource utilization while implementing a cost-efficient, user-friendly means for transparently routing data from one point to another.

58. In considering claim 47, it is implicit in the teachings of Wolpert that a cost is associated with at least one of: the distance that data must travel over a selected data routing path, the cost of sending data over a selected data routing path, and the cost of sending the data at a selected time of day, (col. 2, lines 24-57). One of ordinary skill in the art would modify the teachings of Colby with Wolpert for the same reasons indicated in consideration of claim 46.

59. Claims 18, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby and Brendel in view of Wolpert, and further in view of Miller.

60. In considering claim 18, although the disclosed system of Colby and Brendel in view of Wolpert shows substantial features of the claimed invention, it fails to expressly disclose:

   a) Detecting a delivery related characteristic.

Nevertheless, the method of Miller teaches:

   a) A routing controller 10, for detecting a delivery related characteristic, (col.

      6, lines 35-51).

Thus, given the teachings of Miller, it would have been obvious to a person of

ordinary skill in the art at the time of the present invention to modify the teachings of

Colby and Wolpert to show the routing controller detecting a characteristic that includes

a delivery-related characteristic of routed data over a particular communications link,

and to direct the data using a least cost route meeting a selected delivery-related

characteristic criteria. This would have facilitated delivery of data to requesting system

nodes in an optimized and efficient manner, Miller col. 1, lines 51-56.

   61. In considering claim 19, Miller teaches the delivery-related characteristic

including at least one of: data transmission accuracy; data transmission speed; data

transmission security and data transmission time, (col. 6, lines 35-51). One of ordinary

skill in the art would combine the teachings of Colby and Wolpert with Miller for the

reasons indicated in consideration of claim 18.

   62. Claims 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Colby in view of Brendel, and further in view of Reed et al. (hereinafter Reed), U.S.

patent 5,862,325.

63. In considering claim 30, although the disclosed system of Colby shows substantial features of the claimed invention, it fails to expressly disclose:

a) Decrypting received data.

Nevertheless, decrypting received data was well known in the art at the time of the present invention. Reed, in a similar field of endeavor, demonstrates this in an automated communications system comprising:

a) Decrypting received data, (col. 51, lines 42-48).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the user node decrypting received data to make it available for use. This would have been a necessary step in securely transmitting encrypted data between the user node and the application routing controller.

64. In considering claim 31, although the disclosed system of Colby shows substantial features of the claimed invention, it fails to expressly disclose:

a) Using Object Oriented Programming (OOP).

Nevertheless, OOP was well known in the art at the time of the present invention. This is exemplified in the method taught by Reed where the method teaches:

a) Communicating over a network using OOP, (col. 8, lines 51-63).

Thus, given the teachings of Reed, it would have been obvious to a person of ordinary skill in the art at the time of the present invention to modify the teachings of Colby to show the application routing controller communicating over the network using

OOP communication. This would have simplified transfer, storage and processing of

the communication data, Reed, col. 8, lines 51-63.

Conclusion

65. It is the Examiner's position that Applicant has not yet submitted claims drawn

to limitations, which define the operation and apparatus of Applicant's disclosed

invention in a manner that distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims implies

the Applicant intends broad interpretation be given to the claims. The Examiner has

interpreted the claims with scope parallel to the Applicant in the response and reiterated

the need for Applicant to define the claimed invention more clearly and distinctly.

66. Applicant's amendment necessitated the new ground(s) of rejection presented

in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

67. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP/
4/7/05

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER